SPACE GRANT EVALUATION



Dr. Bernice G. Alston, Paragon TEC

Dr. Patricia Moore Shaffer, NASA Office of Education

February 27, 2015



Launch of the Five-Year Space Grant Evaluation (2010-2014)



2010-2014 Evaluation

- Focused on national program and state consortia performance
- External evaluation

Past Evaluations

- Focused on state consortia performance
- Internal evaluation led by NASA Space Grant program team

This study builds on past SG 5-year evaluations while refining the evaluation design with stakeholder input.

Five-Year Space Grant Evaluation (2010-2014)



- Draft evaluation questions address the following topics:
 - Compliance with Public Law 100-147 and alignment with the priorities of NASA Education and NASA research and technology development
 - Program management practices, including the application and award process
 - Consortium-level and overall program impact
 - Identification of effective practices in consortia partnerships
 - Challenges, barriers, and constraints to obtaining high-quality results

SG Evaluation Phases*





Planning

- Community consultation on evaluation questions, existing data sources, and past SG evaluation methods and rubrics
- Data quality assessment
- Evaluation planning



Data Collection & Analysis

- Collection and analysis of existing data held by NASA and other stakeholders
- Anticipate continuing some processes from past evaluations and introducing new processes



Reporting & Recommendations

- Comments period for draft report
- Community discussion of recommendations

STAKEHOLDER INVOLVEMENT



*This information is TENTATIVE, and for planning purposes only



Evaluation Planning

- To fully document the current SG program model, including inputs, strategies/activities, outputs, and short-, intermediate-, and longterm outcomes in consultation with the SG stakeholder community;
- ii. To conduct an assessment of performance data, reporting and program documentation held by SG consortia and the NASA Office of Education to ensure that appropriate, valid and reliable data are collected to document SG strategies/activities, outputs, and outcomes at the consortium and national levels;
- iii. To prepare a design and plan for an external evaluation study and make formal recommendations to improve NASA's performance monitoring and preparedness for future SG program evaluations based on a thorough review of previous evaluations, consultation with the SG community, and the results of the assessment of performance data, reporting, and program documentation.

Introduction to Paragon TEC

Technology Services

- IT Support
- Help Desk
- Community Website

 Development
- Information Management Systems
- Business/Professional Services

Education Services

- Customized Training
- Curriculum Development
- Educational Program
 Design/Management
- Program Evaluations/
 Assessments
- Workforce Development
- Business/Professional
 Services

Communication Services

- Conference and EventPlanning
- Marketing and Public Relations
- Museum and Exhibit Management
- Business Professional
 Services

NASA HQ Education Communications Support Services (ECSS)

NASA Glenn Education

Support Services (ES2)

Science, Engineering, Mathematics and Aerospace Academy (SEMAA)

Outreach Support Services (VECOSS)

NASA Explorer Schools (NES) Project

Aeronautics Communications and

Education Support (ACES)

Motivating Undergraduates in Science and Technology Professional Academic Support

Visitor Education & Community

NASA Goddard Visitor Center

System (MUST PASS)

Policy Support and Strategic Planning

Communications

Meetings and Conferences

Data Research Collection/Analysis

Training & Educator Professional

Development

Program Design/Management

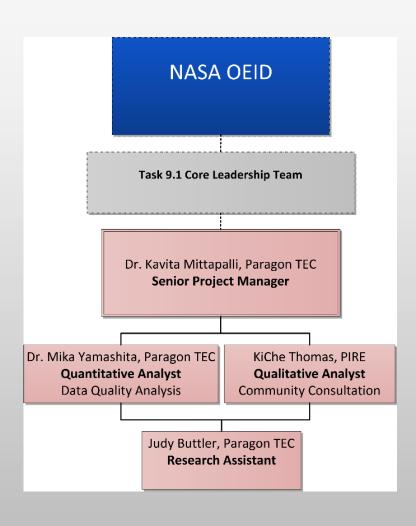
Student & Family Involvement

National Programs

Project Management Services

•

Contractor Team/Relationship to NASA Office of Education



9

Review of Space Grant Program Documentation and Past Evaluation Studies



Celebrating
25 YEARS
National Space Grant
College and Fellowship Program
Charleston, South

PerkinsReport – Office of Education

Pertinent Legislation

Public L. 100-147, October 30, 1987, 101 Stat. 869-875, 42 U.S.C. 2486

Budget Justifications 2010-14

National Aeronautics and Space Administration Budget Request Summary NASA Space Grant 2007 Five-Year Evaluation Summary and Impact Report

Additional Activities

- Interviewed NASA Office of Education staff as needed to understand the program history, goals, objectives, and anticipated outcomes
- Reviewed pertinent legislation and national program objectives
- Reviewed all reports and instruments associated with Space Grant that were received on or before January 5, 2015.
- Learned, through discussions with NASA staff, about current approaches to monitor and assess the performance of the SG consortia and to evaluate the national program and gain an understanding of performance data and reports currently collected from SG consortia.

Data Quality Assessment Methodology

Assess the viability of Space Grant data and documentation for use in Performance Monitoring and Evaluation:

13 Space Grant Outcomes

7 Evaluation Questions

Data Quality Assessment included:

Survey Monkey, OEPM,

Student Data Tables, Expenditure Summary Tables,

Annual Performance Data Reports

Draft Findings from Data Quality

Assessment

of Projects (FY2010)

Program Element	Avg	Min	Max
Fellowship/Scholarship	7.4	1	28
Research Infrastructure	5.1	1	16
Higher Education	11.1	1	56

Community Consultation Groups

- Space Grant Affiliates,
- NASA Education Coordinating Council,
- National Council of Space Grant Directors, and
- National Space Grant Foundation

Purpose of Discussion Groups



- to gain a better understanding of the position of the Space Grant program in NASA's broader educational agenda,
- identify the measurable goals and objectives of the Space Grant program, and
- to formulate evaluation questions for each goal and objective to be used for Space Grant evaluation later.

Open-ended Questions Focused on the Following Factors:

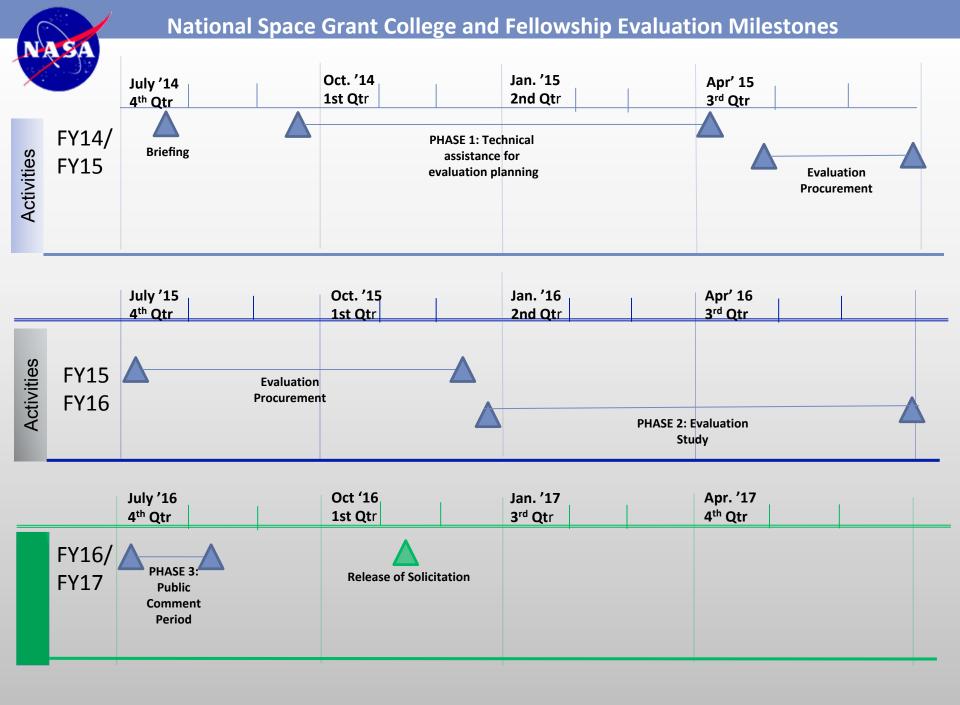
- 1. their current role/s and functions in and understanding of the Space Grant program model;
- how the Space Grant program has developed over time (for those groups with a long history);
- goals and objectives for the Space Grant program including short, intermediate and long-term outcomes as well as key strategies and activities of the program;
- 4. how Space Grant recipients are currently monitored and evaluated (what documentation is current required) and the strength and weaknesses of the current approach from their viewpoint and what can be improved;
- 5. current sources of information and data used to document, monitor, and evaluate Space Grant programs;
- whether proposed evaluation questions are appropriate and realistic.

Findings from Community Consultation Discussion Groups

- Space Grant was recognized as a valuable program across all groups and its contributions were duly noted at every stakeholder level
- More effective, timely, and perhaps more frequent transparent communication is needed moving forward.
- Partnership relationship vs increased NASA governance
- Collaboration across states have a positive and lasting effect on Space Grant
- Mistrust within the grantee/benefactor relationship
- NASA Office of Education being more responsive to Space Grant needs
- The need for an external evaluation of Space Grant was highlighted
- Variance in funding and sustainability were concerns at all levels
- Noted improvements to data collection and monitoring have occurred over Space Grants' history however additional streamlining and enhancements are needed

Next Steps

• To prepare a design and plan for an external evaluation study and make formal recommendations to improve NASA's performance monitoring and preparedness for future Space Grant program evaluations. These deliverables will be based on a thorough review of previous evaluations, consultation with the Space Grant community, and the results of the assessment of performance data, reporting, and program documentation.



QUESTIONS

Dr. Bernice G. Alston, Paragon TEC balston@paragon-tec.com

Dr. Patricia Moore Shaffer, NASA OEID patricia.a.shaffer@nasa.gov